

Please amend the application as follows:

**IN THE TITLE**

Please replace the current title, "ROUTING METHOD AND APPARATUS THAT UTILIZE DIAGONAL ROUTES," with "LP METHOD AND APPARATUS FOR IDENTIFYING ROUTE PROPAGATIONS."

**IN THE SPECIFICATION**

Please delete the "Claim of Benefit to Prior Application" on page 1, lines 1-11, and insert therein a new Claim of Benefit to Prior Applications as follows:

**--CLAIM OF BENEFIT TO PRIOR APPLICATIONS**

This application is a continuation application of United States Patent Application entitled "Routing Method and Apparatus that Utilizes Diagonal Routes," filed on December 7, 2001, and having serial number 10/013,819. This patent application also claims the benefit of the earlier-filed U.S. Provisional Patent Application entitled "Method and Apparatus that Utilize Diagonal Routes", having serial number 60/325,748, and filed 1/19/2001; U.S. Provisional Patent Application entitled "Routing Method and Apparatus", having serial number 60/314,580, and filed 8/23/2000; and U.S. Provisional Patent Application entitled "Routing Method and Apparatus", having serial number 60/337,504, and filed 12/6/2001--

Please delete the "Field of the Invention" on page 1, lines 10-12, and insert therein  
a new Field of the Invention as follows:

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**--FIELD OF THE INVENTION**

*Q2*  
The invention is directed towards LP method and apparatus for identifying  
route propagations.--

On page 5, lines 1-8, please delete the "Summary of the Invention", and insert  
therein a new Summary of the Invention as follows:

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**--SUMMARY OF THE INVENTION**

*Q3*  
Some embodiments provide an LP method that identifies route propagations. In  
some embodiments, this method is used by a router that hierarchically defines routes for  
nets within a region of a design layout. The router (1) partitions the region into a first set  
of sub-regions, and (2) for each particular net, identifies a route that traverses a set of the  
first-set sub-regions. In some embodiments, the invention's method partitions the first set  
of sub-regions into a second set of smaller sub-regions. It then identifies a plurality of  
propagation possibilities for propagating each route into the second set of smaller sub-  
regions of the first set sub-regions. The method next formulates a linear-programming  
("LP") problem based on the identified propagation possibilities. The method then solves  
the LP problem.